

Notice of Allowability

Application No.

09/671,963

Examiner

Robert Sellers

Applicant(s)

LU ET AL.

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 30 December 2003.
2. ☒ The allowed claim(s) is/are 15, 18 and 30-34.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. <u>104</u> |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____ | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Charles Vorndran on January 9, 2004.

The application has been amended as follows:

Change the title to: - JOINING ELECTROCONDUCTIVE MATERIALS WITH ELECTROCONDUCTIVE ADHESIVE CONTAINING EPOXIDE-MODIFIED POLYURETHANE--.

Specification, page 3, line 32, after "filler." insert - -The electrically conductive adhesive is applied to at least one electrically conductive material(s) which is joined to a substrate and cured.--; page 4, line 15; claim 15, line 16 and claim 30, line 18, after "X₁" insert --, X'₁--.

Claim 15, line 2, before "adhesive" insert --an electrically conductive-- and after "composition" insert --to at least one of said electrically conductive materials,-- and line 3, replace "consisting of" with --wherein the adhesive composition consists of--.

Claim 15, line 16, replace "wherein the cross-linking agent is a carboxylic acid anhydride cross-linker" with --a carboxylic acid anhydride as a cross-linking agent-- and delete line 17.

Claim 15, line 20; and claim 30, line 18, replace the period "." with ---;---;
add the following new line 21: - -joining the electrically conductive material(s) with the
applied adhesive to a substrate; and- -; and add the following new line 21:
- -curing the adhesive--.

Replace the abstract with the following new one presented on a separate page.

The following is an examiner's statement of reasons for allowance:

The 35 U.S.C. 112, first and second paragraphs, rejections are rescinded in
response to the amendment after Final rejection filed December 30, 2003 which has
deleted the unsupported and unclearly defined terminology from independent claim 15.

The methods of joining electrically conductive materials of independent claims 15
and 30 are limited to the application of adhesive compositions "consisting of" the
components which precludes the non-urethane-modified epoxy resins set forth in the
closest prior art of Okuri et al., Saito et al. '502, Lohse, the Japanese patents and the
Soviet Union patent.

Any comments considered necessary by applicant must be submitted no later
than the payment of the issue fee and, to avoid processing delays, should preferably
accompany the issue fee. Such submissions should be clearly labeled

"Comments on Statement of Reasons for Allowance."

(571) 272-1093 (Fax no. (703) 872-9306)
Monday to Friday from 9:30 to 6:00 EST

rs
1/9/04



ROBERT E. SELLERS II
PRIMARY EXAMINER

--ABSTRACT

A method of joining electrically conductive materials comprises:

Applying an electrically conductive adhesive to at least one electrically conductive material(s), wherein the electrically conductive adhesive is prepared from an epoxide-modified polyurethane, a cross-linking agent, an adhesion promotor and a conductive filler; and

joining the electrically conductive material(s) with the applied adhesive to a substrate and curing the adhesive.--.